



Is expert opinion enough? A critical assessment of the evidence for potential impacts of climate change on tick-borne diseases

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Abstract:

Before attributing cause and consequence to climate change, the precise patterns of change must be known. Ground records across much of Europe show a 1-2 degrees C rise in temperatures in 1989 with no significant rise since then. The timing and spatial uniformity of this pattern, relative to changes in the distribution and incidence of many vector-borne diseases, are sufficient to falsify most simple claims that climate change is the principal cause of disease emergence. Furthermore, age-specific increases in incidence indicate causes other than, or in addition to, climate change. Unfortunately, many public health professionals repeat the received wisdom that climate change is worsening the burden of indirectly transmitted infections; this 'expert opinion' soon becomes consensus dogma divorced from quantitative evidence. The pressing need is to gather appropriate data to test the simple concept that the composition and relative importance of disparate multifactorial factors, commonly integrated within a causal nexus, will inevitably vary with the geographical, cultural, socio-economical, wildlife, etc. context. The greatest impact of warming occurs at the geographical limits of current distributions, where low temperatures limit the hazard of infected vectors. Within core endemic regions, changing exposure of humans to this hazard, through changing socio-economic factors is evidently more important amongst both the poor and the wealthy.

Source: <http://dx.doi.org/10.1017/s1466252313000091>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

Climate Change and Human Health Literature Portal

resource focuses on specific location

Global or Unspecified

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Tick-borne Disease

Tick-borne Disease: General Tick-borne Disease

Resource Type: ☒

format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified